AMENDMENTS TO THE SPECIFICATION

On page 2, please delete the heading "BACKGROUND OF THE INVENTION" and insert the heading "REFERENCE TO RELATED APPLICATIONS".

On page 2, please delete the subheading "1. Claim of Priority:"

On page 2, please delete the subheading "2. Field of the Invention:" and insert the heading "FIELD OF THE INVENTION".

On page 2, please delete the subheading "3. Description of the Prior Art:" and insert the heading "BACKGROUND OF THE INVENTION".

Please amend the third paragraph on page 2 as follows:

Increasingly, anesthesiologists use liquid anesthetic agents, administered intravenously. This technique allows for faster anesthesia induction and faster corrective action if a patient shows sign of adverse reaction to the anesthesia. At the onset of the procedure, an intravenous (IV) catheter is inserted in a vein and connected to an IV bag providing a constant drip of saline via an IV line including one or, typically more, access sites for drug administration via syringes and/or IV pumps.

Please amend the first paragraph on page 3 as follows:

Thus, there is a growing need for better valves and valve manifolds for use in anesthesia. This disclosure describes a new concept~~, in light embodiments,~~ aimed at facilitating anesthesia induction without the drawbacks of the existing valve systems.

Please amend the first and second paragraphs on page 4 as follows:

The present invention is directed to an improved anesthesia manifold and an improved induction valve mechanism. A plurality of induction valve elements may be joined or "ganged" together in order to define a manifold. In the preferred embodiment of the induction manifold, at least two individual valve elements are combined to form the manifold. Each of the plurality of valve elements includes the following components: (1) a valve body; (2) a first inlet

port carried by the valve body and defining at least in part a central fluid communication flow path for supplying intravenous fluid to patient; and (3) a second inlet port carried ~~by the said~~ valve body and at least in part defining an anesthesia drug inlet. Each of the plurality of valve components include: (1) an induction valve mechanism which maintains ~~the said~~ second inlet port in a closed condition until a predetermined amount of pressure is applied thereto; and (2) a back flow valve mechanism which maintains ~~the said~~ induction valve components in open condition to permit at least one of the following operations: (a) aspiration; (b) back flow; (c) purging; and (d) sampling.

Additionally, a control mechanism is provided for each of the plurality of individual valve components to actuate ~~the said~~ induction valve mechanism and ~~the said~~ backflow valve mechanism.

Please delete pages 5-7 and page 8, lines 1-11.

On page 8, please delete the subheading "THE SEVENTH EMBODIMENT" and insert the heading "BRIEF DESCRIPTION OF THE DRAWINGS".

On page 8, please insert the following paragraph after the heading "BRIEF DESCRIPTION OF THE DRAWINGS":

The present invention will be understood and appreciated more fully from the following detailed description, taken in conjunction with the drawings in which:

Please amend page 8, line 14-page 9, line 1 as follows:

~~Fig. 1~~ ~~Figure 28~~ depicts the components which make up ~~a preferred the seventh~~ embodiment ~~of the present invention~~ in exploded view ~~form.~~ form;

~~Fig. 2~~ ~~Figure 29~~ is a partial longitudinal section view of a portion of the ~~seventh embodiment.~~ preferred embodiment;

~~Fig. 3~~ ~~Figure 30~~ is a partial longitudinal section view of a portion of the ~~seventh embodiment.~~ preferred embodiment;

~~Fig. 4~~ ~~Figure 31~~ is a perspective view of the ring component ~~705 of Figure 28.~~ shown in Fig. 1;

~~Fig. 5~~ ~~Figure 32~~ is a pictorial representation of a manifold formed with a number of

the valves "ganged" ~~together.~~ together; and

~~Fig. 6 Figure 33~~ is a pictorial representation of an anti-rotational interlock feature.

Please amend the first paragraph on page 10 as follows:

The present invention is directed to an improved valve manifold for use in delivering liquid anesthesia. The invention ~~also~~ includes ~~several alternative~~ novel valve elements which can be "ganged" together to constitute a manifold. The embodiment ~~Six different embodiments are~~ described in this application. ~~All of them share common~~ has several operational ~~attributes. These~~ attributes ~~include,~~ including: (1) the manifold is made up of a plurality of independently-operable valve elements; (2) each valve can be individually controlled and moved between any one of a plurality of predefined operating modes; and (3) the two basic modes of operation include a pressure-activated flow mode of operation, and an aspiration/backflow/purge/sample mode of operation. ~~This is true of all concepts except the one including luer activated valves (Fig. 18). for this manifold the two basic modes of operation include a luer-activated flow mode of operation and an aspiration/backflow/purge/sample mode of operation. This concept differs from the other members of this family, for instance it does not prevent retrograde flow when activated.~~

Please amend the second paragraph on page 11 as follows:

In ~~the following embodiments~~ a preferred embodiment of the present invention, ~~each~~ the individual valve members ~~is described. All of them~~ require that some component be moved in order to switch the valve between the modes of operation.

Please delete from page 11, line 15-page 26, line 18.

Please amend from page 26, line 19-page 30, line 8 as follows:

A ~~seventh preferred~~ embodiment of the present invention is depicted in ~~figures 28 through 33~~ Figs. 1-6. ~~Figure 28~~ Fig. 1 depicts the components which make up the ~~seventh preferred~~ embodiment in exploded view form. ~~Figure 29~~ Fig. 2 is a partial longitudinal section view of a portion of the ~~seventh preferred~~ embodiment. In the view of ~~Figure 29~~ Fig. 2, the valve is depicted

in an aspiration/backflow/purge/sample mode of operation. In contrast, ~~Figure 30~~ Fig. 3 is a partial longitudinal section view of a portion of the ~~seventh preferred~~ embodiment; however, ~~Figure 30~~ Fig. 3 depicts the apparatus in a pressure-activated flow mode of operation. ~~Figure 31~~ Fig. 4 is a perspective view of ~~the a~~ ring component ~~705~~ of ~~Figure 28~~ Fig. 1. ~~Figure 32~~ Fig. 5 is a pictorial representation of a manifold formed with a number of the valves "ganged" together.

With reference now to ~~Figure 28~~ Fig. 1, the ~~seventh preferred~~ embodiment will now be described. ~~The~~ A valve 701 is made up of three major components: a core 703, a ring 705, and a body 707. The core 703 includes a manually-operable portion 709 with outwardly extending "wings" ~~711, 713~~ 711 and 713 which are adapted to be gripped by thumb and forefinger of an operator. The core may be rotated between two positions, each position ~~corresponds~~ corresponding to an operating mode. When the "wings" ~~711, 713~~ 711 and 713 are aligned as ~~is~~ shown in ~~Figure 29~~ Fig. 2, the valve is in an aspiration/backflow/purge/sample mode of operation. When the "wings" ~~711, 713~~ 711 and 713 are positioned orthogonal to the position of ~~Figure 29~~ Fig. 2, the valve is in a pressure-activated flow mode of operation. The core 703 further includes a contoured lower portion 716 which is adapted to extend through the central bore of ring 705 and to secure the ring from rotating relatively to the core, with components maintained within the cavity of body 707. Body 707 includes an inlet 715 which is adapted for the receipt of anesthesia drugs or other fluids which are to be administered to a patient, and an outlet 717 which allows flow through the manifold and toward the patient. In the aspiration/backflow/purge/sample mode of operation, fluids may be pulled from the manifold in reverse direction, flowing from outlet 717 toward inlet 715.

With reference now to ~~Figure 29~~ Fig. 2, the aspiration/backflow/purge/sample mode of operation will now be described. In this view, inlet 715 is shown as including an external female connector 719 and a central cavity 721. Outlet 717 includes a central cavity 730. ~~as is~~ As shown in this view, flow arrows 723, 725, 727, and 729 depict a possible flow inward through valve 701. In this configuration, fluid may also flow in the reverse direction from outlet 717 to inlet 715. Core 703 is shown as including a central cavity 731 which aligns with inlet 715 and outlet 717 when the "wings" 711 and 713 ~~711, 713 members~~ of core 703 are aligned with inlet and outlet ports ~~715, 717~~ 715 and 717. In this configuration, the ring 705 of ~~Figure 28~~ Fig. 1 does not interfere with the inward or outward flow of fluid through valve 701. ~~In the view of Figure 29~~ Fig. 2 also depicts the manner by which core 703 is secured in position relative to body 707. More specifically, a circular

notch 737 is provided on the exterior surface of core 703 at its distal end. A corresponding shoulder 739 is formed in the central cavity of body 707 and adapted in size and location in order to mate with circular notch 737.

~~Figure 30~~ Fig. 3 depicts ~~the~~ valve 701 in a pressure-activated flow mode of operation. In this configuration, ring 705 operates to permit the flow of fluid in one direction only and to check the flow of fluid in the opposite direction. ~~In the view of Figure 30~~ As seen in Fig. 3, flow arrows 751, 753, 755, 757, 759, 761, and 763 depict the flow of fluid through valve 701 in this particular mode of operation. As ~~is~~ shown, ring 705 includes flaps 771 and 773 ~~members 771, 773~~, which extend downward into the flowpath when the core 703 is rotated to change the mode of operation. Flaps 771 and 773 ~~771, 773~~, are adapted to move easily in response to one flow direction, but to oppose flow in the opposite direction. For example, flap 773 is adapted to be in close physical proximity to flow channel 721 of inlet 715. Fluid flowing inward through inlet 715 will push flap 773 radially inward and will flow under and around flap 773. In the event of backflow, flap 773 will be pushed into sealing engagement with cavity 721, thus checking backflow. Likewise, flap 771 is in close physical proximity to cavity 731 of core 703. Flap 771 will move radially outward in response to flow moving from inlet 715 to outlet 717. Fluid will urge flap 771 radially outward and will flow around flap 771. However, flap 771 will check the reverse flow by sealing engagement of flap 771 to cavity 731 of core 703. Note that there is an asymmetry between flaps 773 and 771. This asymmetry facilitates the operation of the valve during the pressure activated flow mode. In an alternative embodiment ~~embodiments~~, it may be possible to utilize only a single flap. In such an alternative, flap 771 is likely excluded and flap 773 is utilized solely to preferentially direct the flow of fluid inward in response to the pressure from fluid at inlet 715~~, but~~ and to check the flow of fluid backward through valve 701.

~~Figure 31~~ Fig. 4 depicts ring 705 in a perspective view. As is shown, a shoulder 781 is provided at the upper end of ring 705 to engage body 707. Cavities ~~783, 785~~ 783 and 785 are provided to allow fluid to pass through ring 705 during the aspiration/backflow/purge/sample mode of operation. Cavities ~~787, 789~~ 787 and 789 are provided at the lower portion of ring 705 in order to define ~~the~~ flaps 771 and 773 ~~members 711, 713~~.

~~Figure 32~~ Fig. 5 is a pictorial representation of an anesthesia manifold formed through the "ganging" together of valves ~~714, 716, 718~~ 714, 716 and 718. ~~The~~ A manifold 710,

~~includes~~ including a central flow member 712, ~~which~~ is mechanically coupled to the outlet ~~members~~ ports of valves ~~714, 716, 718~~ 714, 716 and 718. ~~The inlet members 720, 722, 724~~ Inlet ports 720, 722 and 724 are adapted to mate with syringes or medication pumps in order to supply medication and/or fluids to the manifold 710. In this view, the wings 711 and 713 of the valves 714, 716 and 718 ~~members~~ are shown as being aligned with the inlet ports 720, 722 and 724, respectively, so ~~these~~ that valves 714, 716 and 718 are in the aspiration/backflow/purge/sample mode of operation.

~~Figure 33~~ Fig. 6 is a pictorial representation of an anti-rotational interlock feature 801 of ~~this particular embodiment~~ the present invention. As ~~is shown~~ seen in Fig. 6, the core 703 is disposed within a central cavity defined within ring 705. Ring 705 is disposed within a central cavity of body 707. ~~As is shown, ribs 790, 792~~ Ribs 790 and 792 are formed on the exterior surface of core 703. They extend along at least a substantial portion of the outer surface of core 703. Corresponding slots ~~794, 796~~ 794 and 796 are defined within the central bore of ring 705. ~~The ribs 790, 792~~ Ribs 790 and 792 are adapted in size and shape in order to fit within slots ~~794, 796~~ 794 and 796. In alternative embodiments, as few as one rib and slot may be utilized to lock the core 703 to ring 705 forcing them to move together as the core is rotated relative to body 707. In yet alternative embodiments, a plurality of ribs and slots may be provided between core 703 and ring 705. In an alternative configuration, the ribs may be provided on ring 705 and the slots may be provided on core 703. This anti-rotational interlock feature 801 ensures that the core 703 and ring 705 are always properly aligned.